Water and wildlife in the Serengeti-Mara ecosystem

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1. Intense livestock grazing changes the condition of watersheds through its effects on grass biomass and water infiltration capacity, ultimately resulting into severe erosion and both short-lived flash floods and prolonged low/zero flow periods that diminish surface water availability for wildlife use (this thesis).

2. Fire has a much smaller impact and wildlife grazing even less that diminishes surface water availability for wildlife use especially in the dry season (this thesis).

3. The recent evidences on a wide range of water requirements among large mammalian herbivores provides an important understanding that protected area managers need to consider when addressing water provision through artificial water sources across the landscape (this thesis).

4. Heteregeneity in surface water availability across the landscape is critically important for enhancing species diversity and coexistence of diverse herbivore community assemblages and thus good for ecosystem proccesses and functioning.

5. Minimum dry season dung moisture content, an ease to measure (functional trait) is an index for species's water dependence among savanna ungulates (this thesis).

6. The mean distance to water distribution of browsers depends on species-specific water requirements.

7. Water requirements explain spatial niche partioning of grazing herbivores in addition to body size (this thesis).

8. Wildlife ecosystems are made-up of seasonally used compartments that defines and explain the seasonal movement of large migratory ungulates (Wolanski et at 2002).